BUSINESS CONDITIONS

A REVIEW BY THE FEDERAL RESERVE BANK OF CHICAGO

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FEBRUARY, 1947

Agricultural Research to Expand

Extensive Program Planned Under 1946 Federal Act

The President, in his recent economic report to Congress, stated that the United States will this year invest more than one billion dollars in research. American industry in 1940 employed over 70,000 people in research work of various types, in over 2,200 laboratories, at an annual cost of 300 million dollars, according to the National Resources Planning Board. Industrial expenditures for this type of work have increased materially in recent years. Total expenditures on agricultural research from Federal, state, and local funds averaged about 37 million dollars annually in the late 'thirties. Also, individuals and private concerns expended unknown but significant amounts on agricultural research. Such private expenditures have increased in recent years, particularly in the production of hybrid seeds. However, agriculture, as well as other small businesses, probably will continue to rely largely on public funds for research.

Federal aid to the scientific investigation of the many phases of agricultural production and marketing operations was given strong support by the last Congress which passed an act authorizing increased appropriations for these purposes in an amount of 9.5 million dollars for the fiscal year ending June 30, 1947, increasing to 61 million dollars for the year ending June 30, 1951. With the intent of assuring agriculture a position in research equal to that of industry, and thereby aiding in the maintenance of an equitable balance between agriculture and other sections of the economy, the Congress declared its policy to promote the efficient production and utilization of products of the soil as essential to the health and welfare of our people and to promote a sound and prosperous agriculture and rural life as indispensable to the maintenance of full employment and national prosperity. For the attainment of these objectives, the Secretary of Agriculture was authorized and directed to conduct and stimulate research into the laws and principles underlying the basic problems of agriculture in its broadest aspects.

Although the scope of the legislation is very broad, authorizing research on almost any conceivable agricultural problem, particular attention is devoted to the industrial utilization and marketing of farm products. Included in the research activities authorized are: the discovery, introduction, and breeding of new plants and crops, particularly those that may be utilized in the chemical and manufacturing industries, and of improved farm animals; investigations into human nutrition, the nutritive value of agricultural commodities, and changes in nutritive values that occur during production, distribution, processing, and preparation for consumer use; conservation of land, forest, and water resources; and the development of more efficient farm buildings and machinery.

Emphasis is placed on marketing research by directing that certain of the funds appropriated must be applied to studies in this field. Among the specific activities authorized in the marketing of agricultural products are: the determination of the best methods of handling, processing, packaging, transporting, storing, and distributing farm products; the determination of marketing costs; the development and improvement of standards of quality; the development of new or expanded markets and uses for farm products; the collection and dissemination of market information, including outlook information; aids in the extension of consumer education; the conducting of programs designed to eliminate artificial trade barriers; and assistance in the improvement of transportation and market facilities. In addition to research studies in marketing, the provision of services such as inspecting and grading agricultural products and providing market news services is authorized. From these types of activities it is presumed that the costs of marketing can be reduced and the total demand (particularly the industrial demand) for farm products increased.

PROGRAM IS FLEXIBLE

The Secretary of Agriculture has wide discretion in the execution of the program. He is directed to make full use of the facilities of the Federal Government, the state agricultural experiment stations, and the Federal and state Extension Service. Beyond this he is authorized to make agreements with states and agencies of states, private firms, institutions, and individuals for the purpose of conducting research and service work.

Part of the funds authorized to be appropriated by the Federal Government must be allocated to the states. The states must, in turn, match part of the funds available to them from the Federal Government with new funds from state sources. This "matching" feature has been used extensively by the Federal Government in providing financial aid for activities of this type as a means of increasing the total resources applied to the solution of certain problems and to encourage the efficient use of Federal funds by state agencies.

The authority of the Secretary of Agriculture to contract with private research organizations, individuals, or firms which are well qualified in his judgment to conduct research or service work on some of the projects undertaken, is expected to facilitate the studies of the marketing and the industrial utilization of farm products. In these fields of activity the facilities and personnel available in Federal agencies and state experiment stations are apt to prove inadequate to carry out the size of program visualized.

Officials in the Department of Agriculture who are charged with the responsibility for developing the research program have moved with deliberation, recognizing the dangers inherent in a whirlwind expansion of research projects.

(Continued on Inside Back Cover)

Post V-J Day Wage and Salary Trends

Weekly Money, Real Earnings Diverge After Price Decontrol

Average weekly *money* earnings of employees in the industries of the Seventh Federal Reserve District states of Illinois, Indiana, Iowa, Michigan, and Wisconsin now considerably exceed their V-J Day levels, but average weekly *real* earnings are generally lower. The postwar rise in weekly money earnings in manufacturing has been over 12 per cent, and in non-manufacturing even more. In several individual industries, particularly in the non-manufacturing and soft goods manufacturing groups, employees have regained or exceeded their wartime peaks. First round wage increases have not been sufficient, however, to offset the post V-J Day reduced work week in the District's durable goods manufacturing industries; weekly money earnings in these industries, therefore, are still considerably under those of the flush war years.

Second round wage increases and some tendency toward a longer work week in the last few months of 1946, particularly in industries which have been handicapped by material shortages, should result in continued rising average weekly money earnings in the foreseeable future. New wage settlements in such industries as meat packing, rubber, and oil, together with estimates of future wage agreements elsewhere, suggest that second round wage increases will range between 10 and 15 per cent. Such increases in themselves will be sufficient to expand over-all weekly money earnings in manufacturing from 8 to 12 per cent over current levels.

AVERAGE WEEKLY EARNINGS OF WAGE EARNERS IN MANUFACTURING IN THE UNITED STATES AND 4 SEVENTH FEDERAL RESERVE DISTRICT STATES, 1939, JANUARY 1945, V-J DAY, AND NOVEMBER 1946

Weekly Earnings	United States	Illinois	Indiana	Michigan	Wisconsin
Money					
1939	$23.86	$26.70	$25.78	N.A.	$26.09
January 1945	47.50	50.19	48.55	$56.92	48.33
V-J Day (August 1945)	41.72	44.28	46.42	43.98	44.33
November (or October*) 1946	45.65	51.33	41.15*	53.36*	49.09
Real (before taxes)[1]					
1939	31.03	34.23	34.33	N.A.	33.66
January 1945	48.32	50.95	50.36	58.56	49.32
V-J Day (August 1945)	41.72	44.28	46.42	43.98	44.33
November (or October*) 1946	39.05	43.21*	36.45*	46.85*	41.99
Real (after Social Security and Federal income taxes for a family of four)[1]					
1939	30.72	33.88	33.98	N.A.	33.33
January 1945	45.91	47.91	47.68	54.17	46.68
V-J Day (August 1945)	40.50	42.64	44.36	42.54	42.69
November (or October*) 1946	38.23	41.52	36.09*	44.80*	40.55

[1]Real earnings were determined by deflating money earnings reported to the several states by the consumers' price index of the U. S. Bureau of Labor Statistics for the principal city in that state. August 1945 (V-J Day) was used as the base in computing real earnings.
N.A.—Not available.
SOURCES: U. S. Bureau of Labor Statistics, Illinois Department of Labor, Indiana Employment Security Division, Michigan Department of Labor and Industry, and Industrial Commission of Wisconsin.

A 10 per cent increase in wage rates will roughly restore average weekly real earnings in manufacturing to V-J Day levels if prices remain constant. A further advance of 5 per cent in the cost of living would require a 15 per cent rise in wage rates to re-establish end-of-war real earnings; a decline of 5 per cent in the cost of living correspondingly would reduce the required wage increase to less than 5 per cent. These estimates assume a continuation of the current work week and apply to real weekly earnings both before and after taxes. In the case of income taxes, they allow for the 20 per cent cut currently proposed in Congress.

LIVING COSTS AND EARNINGS

As outlined in the January 1947 issue of *Business Conditions*, the cost of living throughout the District from V-J Day to July 1946 showed only minor increases. Elimination of price control led to increases of eight to 15 per cent in living costs in leading District cities. At the outset of 1947, for manufacturing as a whole, average weekly real earnings in the District states were more than 3 and 15 per cent below their V-J Day and wartime levels, respectively. In all instances, however, current real earnings remain above those in 1939.

The decline in weekly real earnings since July 1946 is the major argument underlying organized labor's current demands for second round wage increases. Price rises since decontrol have probably priced many persons out of the market for individual goods, thereby contributing toward building up surpluses of these goods in spite of high over-all money expenditures. Labor argues that second round increases are necessary to prevent this pricing-out-of-the-market process from assuming even more serious proportions. On the basis of the first round pattern to date, approximately one-fifth of manufacturing workers and about three-fifths of employees in trade, service, and finance will receive no second round raises. These employees, the preponderance of whom probably do not belong to trade unions, are therefore in a particularly vulnerable salary-price relationship position.

It is clear to more people now than ever before that further increases in money earnings will benefit employees receiving them only if the prices of commodities which they buy are not again raised correspondingly. Industry spokesmen point to the price rises which followed first round wage increases and claim the process will be repeated if another round of wage increases ensues. Under control, price increases could not precede wage increases. Now that price control no longer exists, industry may raise prices *in anticipation of* wage increases or other rises in costs. Insofar as managements already have anticipated second round wage increases in their post-OPA price advances, and there is some scattered

evidence of this, new wage gains may not result in proportionate increases in prices of products affected. To the extent that this condition prevails and profit prospects allow, possibilities of collective bargaining frictions and second round work stoppages would seem reduced.

Another means of avoiding further price rises is through increased output per man hour. Over short periods of time, the major factors influencing output per man hour are availability of materials and worker efficiency. Data are not available on which to base quantitative estimates of probable increased output per man hour over the course of the next year. Although scarcities still exist, materials are in general flowing more smoothly than they did a year ago. This may lead to a repetition of the post-World War I situation in which output per man hour, after leveling during the war, spurted for a few years as industry surmounted its problems of reconversion and took full advantage of wartime improvements in technology.

STATE MANUFACTURING PATTERNS

Average weekly money earnings in the manufacturing industries of Illinois, Iowa, and Wisconsin exceeded both the V-J Day and January 1945 levels in November 1946. This contrasts with the experience of Indiana and Michigan, which have followed the pattern set by the United States as a whole in not yet having regained the January 1945 level, although remaining considerably above that existing at V-J Day (see accompanying table). This contrast in behavior results primarily from the differing combinations of industries in the two groups of states. Indiana and Michigan have much higher proportions of durable to total manufacturing employment than Illinois, Iowa, and Wisconsin. As already mentioned, the trend toward a shortened work week between V-J Day and the last quarter of 1946 exercised its greatest depressing influence on weekly money earnings in the durable goods industries.

Many of these industries suffered from material shortages and were forced to cut the actual work week below the basic schedule of 40 hours to which they had converted from the wartime 48-hour schedule. Another factor influencing uniformity within the same industry regardless of location is industry-wide bargaining over wage rates and other conditions of work. For example, post V-J Day trends in weekly money earnings in the meat packing industry are very similar in Illinois and Wisconsin; the same thing is true of blast furnaces and rolling mills in Illinois, Indiana, and Michigan, and automobiles in Michigan and Wisconsin.

In all the District states except Michigan average weekly real earnings before and after social security and Federal income taxes[1] were lower at the end of 1946 than they had been at V-J Day (see Chart 1). The automobile industry, which accounts for almost one-half of Michigan's manufacturing employment, started reconverting to peacetime production early in 1945. Average hours worked per week and average weekly earnings consequently had fallen relatively much more than in other manufacturing industries by V-J Day. This situation largely explains the singular behavior in Michigan's weekly real earnings trends. Conversely, the relatively poor showing of average weekly real earnings in Indiana is partly due to the predominance of iron and steel and to the fact that V-J Day was a relatively high base for that industry. Because the choice of a base date necessarily is somewhat arbitrary, Chart 1 and succeeding charts show figures for several dates: prewar, war, V-J Day, and the latest available month. Available evidence indicates that both during the war and since V-J Day, women workers in District manufacturing establishments have experienced somewhat greater relative gains in average weekly money earnings than men. In non-manufacturing, the reverse appears to be true. The manufacturing trend has resulted largely from the increased demand for women workers and the "equal pay for equal work" precedent set by the War Labor Board. In non-manufacturing the result reflects initially the loss of lower paid male workers to the armed services and war work and more recently the return of men at higher wage levels to these same industries.

[1]Social security and Federal income taxes are computed here on the basis of a family of four including one wage earner.

TRENDS IN INDUSTRIAL AREAS

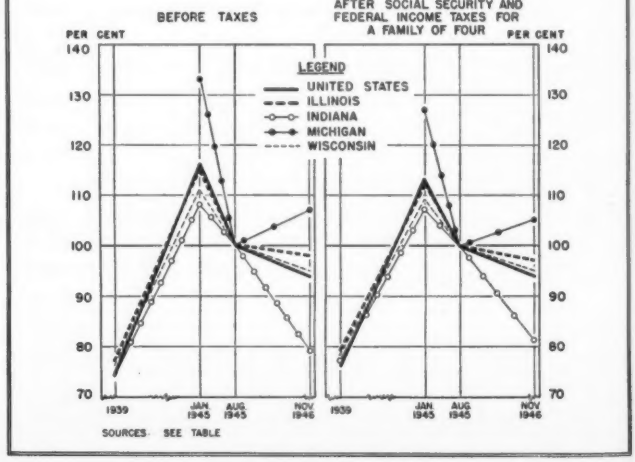
Manufacturing in Chicago and Milwaukee showed decreased weekly real earnings between V-J Day and the end of 1946, whereas the reverse was true of Detroit (see Chart 2). The explanations of these trends are similar to those underlying the respective state trends and reflect the importance of each city in its state economy.

Variations among manufacturing industries in a given industrial area are shown in Chart 3 covering Chicago and Milwaukee. Wage increases based on cost of living would have to vary considerably to bring present real earnings in the various industries to a par with the level of any given previous date.

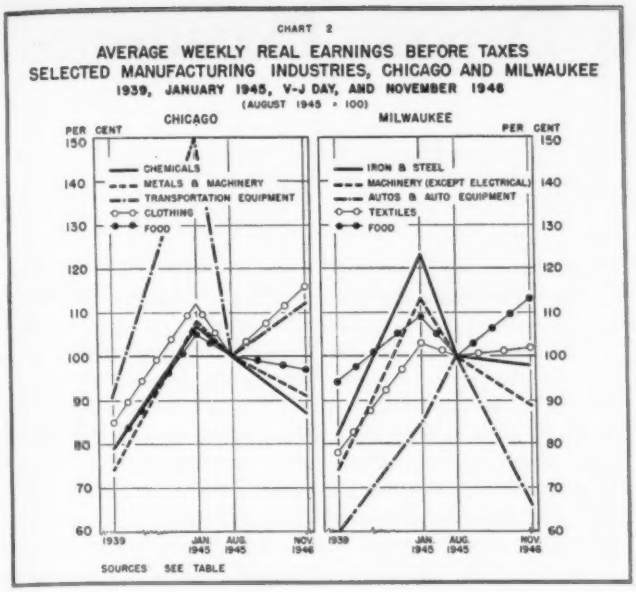
Real earnings trends in manufacturing are available for sixteen smaller industrial areas in Illinois, Michigan, and Wisconsin (see Chart 2). Considerable variations exist in

CHART 1

AVERAGE WEEKLY REAL EARNINGS IN MANUFACTURING FOR THE U.S. AND FOUR STATES IN THE SEVENTH FEDERAL RESERVE DISTRICT
1939, JANUARY 1945, V-J DAY, AND NOVEMBER 1946
(AUGUST 1945 = 100)



SOURCES: SEE TABLE



war and postwar earnings amplitudes among these areas. They result from differing combinations of individual industries, uneven impact of the war particularly with respect to the influx of war plants and their continuance in production after the war, differences in extent of unionization, and variations in severity and length of work stoppages.

Although wartime real earnings levels have not been regained in any of the sixteen areas, in nine areas V-J Day levels have been exceeded. The location in Michigan of five of these nine areas is partly due to the influence of automobile manufacturing and to the fact, already mentioned, that earnings in this industry were relatively depressed on V-J Day, the base used for purposes of this article.

NON-MANUFACTURING INDUSTRIES

Non-manufacturing industries such as retail trade, hotels, and laundries normally have a 48-hour work week and have experienced little or no reductions in hours worked per week since V-J Day. In many areas some workers in these industries have had first round wage increases. Consequently, both weekly money and real earnings are now considerably above V-J Day levels.

Under the wartime pressure for munitions and other goods used by the armed forces, manufacturing industries increased the length of the work week and wage scales to a greater extent than most non-manufacturing industries. Consequently, earnings increases in trade and services were less than those in manufacturing. Since V-J Day, however, the reverse has been true. Faced with heavy demands for their commodities and with manpower shortages, trade and service industries have experienced smaller declines in hours worked per week than manufacturing.

Trade and service industries, however, again stand the risk of lagging behind. As already indicated, a greater percentage of manufacturing workers received first round increases and the pattern will probably be repeated during the second round. Hours worked per week are also rising once again in manufacturing.

Other non-manufacturing industries such as transportation and public utilities have more nearly resembled manufacturing in post V-J Day trends in hours worked per week, percentage of workers receiving first round wage increases, and, consequently, in average weekly money and real earnings.

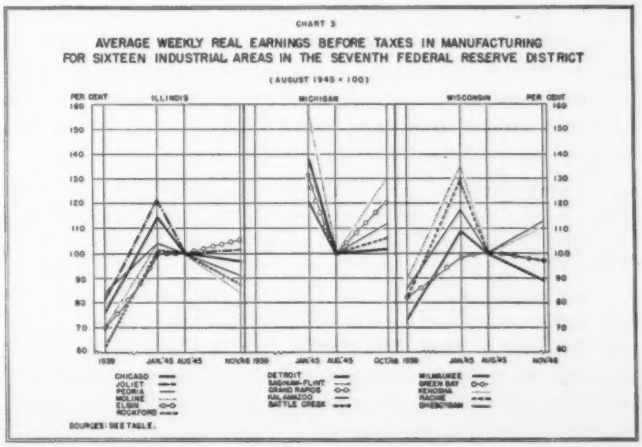
As with manufacturing, individual non-manufacturing industries showed similar trends in the several Seventh District states.

REAL EARNINGS BEFORE AND AFTER TAXES

In 1939 manufacturing workers in the Seventh Federal Reserve District states had average weekly money earnings in the neighborhood of $25. In most non-manufacturing industries the average was even lower. The prewar allowances of $2,500 for married persons and $400 for each dependent exempted most workers from the income tax, leaving them subject only to the Social Security tax of one per cent of their weekly pay.

During the war, money earnings among manufacturing workers in the District reached an average in excess of $50 a week. This approximately doubled money earnings; however, it did not result in an equivalent increase in real earnings. The cost of living rose slightly more than 50 per cent from 1939 to December 1946, and a greater number of workers have begun to pay income taxes because of lowered wartime exemptions. For example, between 1939 and November 1946 weekly money earnings of the average Wisconsin manufacturing worker went up 88 per cent while real earnings before taxes increased only 25 per cent and, if he had a family of four, only 21 per cent after taxes. The impact of taxes becomes greater at any income level the fewer the dependents. It also increases for any given number of dependents as income rises.

Reduced income taxes in 1947—already promised by Republican Congressmen—, the slowing up and eventual reversal of the rise in cost of living, and second round wage increases all point to an end of the recent downward trend in real earnings in the coming months. If employment can be maintained at high levels, these factors will support increased consumer expenditures, both in terms of the money and physical quantities involved.



Debt Retirement Halts Deposit Expansion

Large Banks Show Greater Decline

The wartime growth in bank deposits, the greatest ever recorded in America's financial history, came to a halt and was reversed in 1946. Treasury debt operations, the primary factor contributing to the wartime deposit expansion, brought about in this last year a sharp reduction in bank holdings of total deposits, as debt expansion gave way to debt retirement. In reducing its working balance to a level consistent with the smaller volume of peacetime expenditures the Treasury conducted a program of cash redemption of maturing Government securities, using for that purpose the large war loan accounts which had been built up during the Victory Loan Drive. Inasmuch as more than 75 per cent of the Government securities redeemed by the Treasury in cash were held by the commercial banking system and the Federal Reserve banks, a considerable reduction occurred in total deposits.

Although United States Government deposits declined sharply throughout the nation during 1946–88 per cent at weekly reporting member banks–deposits of individuals and businesses continued to expand, but at a slackened rate. Where the Treasury's debt retirement program involved holdings of nonbank investors, it caused not a drop in total deposits but rather a transfer of funds from war loan accounts to active private accounts, thus explaining the continued expansion in deposits of individuals and businesses. Also important in tending to offset the post V-J Day decline in public bank credit and tending to increase private deposits has been the considerable expansion since the end of the war in private bank credit other than for purchasing or carrying Government securities, including business loans, mortgages, and consumer credit.

Banks in the Seventh Federal Reserve District shared in these broad deposit movements and in the factors influencing them. Weekly reporting member banks in the District had a gain in 1946 of about 8 per cent in deposits of individuals and businesses, while Government deposits dropped 88 per cent. These banks showed declines in all categories of Government security holdings with the exception of U. S. Bonds. At the same time, however, bank loans other than security loans increased, particularly during the second half of the year, and thus contributed to the growth of private deposits in the District.

The last survey of estimated ownership of private demand deposits in the Seventh District as of July 31, 1946, provides a more detailed analysis of deposit trends for the first half of 1946. From January 31 to July 31, 1946, total demand deposits of individuals and business firms in the District rose 3.3 per cent and reached a level of 10,954 million dollars. Unlike the preceding six-month period, when there were sharp fluctuations in deposit ownership, the six-month period ending July 31, 1946, was marked by great stability among all of the ownership components.

Manufacturing and mining accounts, for example, reversed a severe downward dip of the previous period and gained 1.5 per cent, due to the general overcoming of reconversion problems and some increase in bank lending, which was partially the result of work stoppage and rising costs and prices. Trade accounts gained 5.5 per cent as compared with 13 per cent in the previous period, and financial business deposits increased 3.6 per cent as compared with 20 per cent. Personal deposits continued to increase at a faster rate than combined business deposits, although the rate of increase appeared to be declining. Contributing to this behavior in personal deposits are continued high levels of income and substantial cashing of war bonds, which appear to have more than counteracted increases in spending. To an increasing extent, moreover, expenditures are being financed through the use of consumer credit without requiring the reduction of deposits. The accompanying table shows estimated private deposit ownership in the Seventh District on July 31, 1946, for all commercial banks and for those with demand deposits of individuals and businesses over 100 million dollars.

DEPOSITS IN THE LARGE BANKS

Although the upward trend in total deposits for the banking system has been reversed, one major wartime trend has continued. During the war, deposits of the smaller banks grew more rapidly than those of larger city institutions. In recent months deposits of country banks have continued to expand somewhat while deposits of reserve and reserve city banks declined. One reason is that war loan accounts have represented a smaller segment of deposits at small than at large banks, so that their 1946 decline has had less effect on total deposits. Time and demand deposits other than war loan accounts, however, have also tended to increase more

ESTIMATED OWNERSHIP OF DEMAND DEPOSITS OF INDIVIDUALS AND BUSINESSES ELEVEN LARGEST BANKS AND ALL COMMERCIAL BANKS, SEVENTH DISTRICT, JULY 31, 1946

Type of Owner	Eleven Largest Banks		All Commercial Banks	
	Millions of Dollars	Per Cent	Millions of Dollars	Per Cent
Manufacturing and mining	1,829	41.0	2,790	25.5
Public utilities	375	8.4	534	4.9
Retail and wholesale trade	524	11.8	1,823	16.6
All other nonfinancial businesses	266	6.0	633	5.8
Total nonfinancial businesses	2,994	67.2	5,780	52.8
Insurance companies	164	3.7	236	2.2
Trust funds of banks	158	3.5	221	2.0
All other financial businesses	325	7.3	591	5.4
Total financial businesses	647	14.5	1,048	9.6
Nonprofit organizations	147	3.3	369	3.4
Personal (including farmers)	670	15.0	3,757	34.2
Total demand deposits of individuals and businesses	4,458	100.0	10,954	100.0

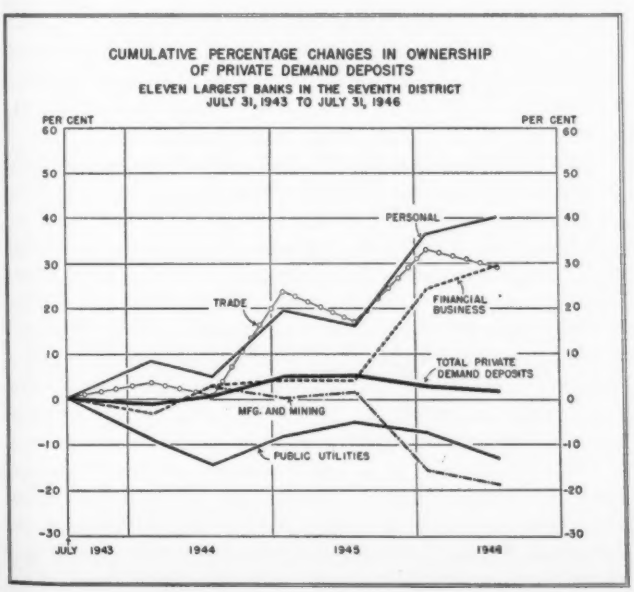
rapidly at country banks than at central reserve and reserve city institutions.

This difference between deposit behavior in large and small banks has been clear-cut in the Seventh District. Banks with demand deposits of individuals and businesses over 100 million dollars experienced a gain of 60 per cent in these deposits in the war years, December 31, 1941, to July 31, 1945, and a 3.3 per cent decline in the year following V-J Day, July 31, 1945, to July 31, 1946. The remainder of the banks in the District had wartime gains of 127 per cent and a continued gain of 17 per cent in the year following V-J Day.

The inverse correlation between deposit growth and size of bank is largely a function of uneven distribution of the increment among the various types of depositors. As deposit ownership surveys made clear, not all types of depositors have expanded their cash assets at the same rate. In some lines of economic activity demand deposits actually showed a net decline, with the result that banks which hold heavy concentrations of deposits of these types of businesses experienced relatively little deposit growth in recent years. Deposit ownership data for the largest District banks—those with deposits over 100 million dollars—available for seven survey dates covering a period of three years illustrate this relationship between deposit growth and deposit ownership.

The eleven banks in the Seventh Federal Reserve District with demand deposits of individuals and businesses over 100 million dollars held 4,458 million dollars in private demand deposits, or slightly over 40 per cent of the District's total on July 31, 1946. More than 65 per cent of the District's manufacturing and mining accounts, 70 per cent of its public utility accounts, and almost 62 per cent of its financial business accounts are held in these eleven large banks. On the other hand, less than 29 per cent of the retail and wholesale trade deposits and less than 18 per cent of personal deposits are in these banks.

In the accompanying chart cumulative percentage changes are shown for the eleven banks combined in total demand deposits of individuals and businesses and in the major ownership components from the date of the first ownership survey, July 31, 1943, through each of the six successive surveys. It can be seen that although the total deposit figure remained relatively constant, reaching a peak of 4,610 million dollars on January 31, 1945, there were severe fluctuations in deposit ownership. Manufacturing and mining accounts from July 1943 to July 1946 dropped about 400 million dollars or almost 20 per cent. The major decline in these accounts occurred between July 1945 and January 1946, a period of heavy reconversion for these businesses. However, even in the following six-month period, when banks in the District as a whole registered a slight gain in these deposits, the eleven large banks experienced a further decline. Since, as is indicated in the table, manufacturing and mining accounts constitute a much larger proportion, 40 per cent, of total deposits in the large banks than they do in the rest of the banks in the District, the sharp decline in this class of account which occurred throughout the nation following V-J Day worked much more strongly in pulling down total private demand deposits at the eleven banks than at smaller banks.



Public utility accounts also exerted a downward influence on large bank deposits. These accounts dropped sharply in the first six months after July 1943, and although they gained in 1944, did not reach the mid-1943 level. After V-J Day these accounts dropped again, so that by July 31, 1946, they were 13 per cent below their level of three years previous.

Although they fluctuated during the three years, personal, trade, and financial business deposits made heavy gains, slightly more than counteracting the losses by these eleven banks in manufacturing and public utility accounts. Personal deposits in those three years rose almost 200 million dollars, or over 40 per cent, the greatest percentage gain being made in the six months following V-J Day. Deposits of retail and wholesale trade establishments in the large banks gained almost 29 per cent in the three years, reaching a peak in January 1946. As mentioned above, personal and trade accounts, which increased more rapidly than the other ownership components through the war years, are relatively less important at large banks than at small, contributing to the disparate deposit trends as between large and small banks.

Although ownership data are not yet available for the period since July 31, 1946, figures showing current trends in total deposits at these eleven banks are available. Since mid-1946 through the first week of January 1947, deposits of individuals and businesses at the eleven banks combined made an almost imperceptible gain—about 1 per cent. However, total deposits at these banks have continued to decline because of continued rapid reduction in war loan deposits and a small loss in interbank deposits. If in the coming months there should develop a movement of funds out of the hands of individuals and small retail businesses into the possession of large manufacturing concerns, the small banks may experience a reduction in their relative share of private deposits. Conversely, if the trends of the past year should continue, the smaller banks' deposits should continue to grow both absolutely and relatively to deposits in the larger banks.

Indiana State Finance — II

State Credit Resources Used Sparingly

Despite the fact that the State of Indiana has seldom in the past one hundred years been without long- or short-term obligations to financial institutions or investors, since the adoption of the Constitution of 1851 borrowings have been of diminishing relative significance. The State government early acquired its knowledge of the consequences of the excessive use of government credit by way of concrete experience and not by precept or horrendous comparison with other states. Loans authorized for public works and particularly the Wabash and Erie Canal were made in the latter 1830's; default followed shortly thereafter. The adjustment and refinancing of an unmanageable debt burden was undertaken in 1846 and 1847. When the Constitution of 1851 was adopted, it reflected the well crystallized sentiment against the use of credit for public works which emerged from a recent and vivid experience.

The 1851 Constitution prohibits the State from incurring debt except to meet casual deficits, to pay interest on existing state debt, to repel invasion, suppress insurrection, and defend the state in time of war. The section reads as follows:

Sec. 5.—No law shall authorize any debt to be contracted, on behalf of the State, except in the following cases: To meet casual deficits in the revenue; to pay the interest on the State debt; to repel invasion, suppress insurrection, or, if hostilities be threatened, provide for the public defense.[1]

This provision has reasonably effected the result intended —it has prevented Indiana from using credit for large spending programs including such public works as highways and waterways. It has not, however, been construed to prohibit various agencies of the State including the Board of Agriculture, Indiana University, and Purdue University, from pledging a variety of real properties such as exhibition halls, armories, stadiums, hospitals, residence halls, and other educational buildings as security for loans to be serviced through earnings, fees, state appropriations, and even from the levy of a state property tax.

AGENCY BORROWING

A distinction between the State and its agencies, even though they may be wholly its creatures, is recognized which permits these agencies to pledge assets and use state appropriations and taxes for debt service without, in a legal sense, contracting a debt in behalf of the State and thus exposing the transaction to the constitutional prohibition. Strictly speaking, not only is the state not legally obligated by such transaction, but the credit used by the issuing agency is limited by statute to a pledge of property acquired or to be acquired with the proceeds of a given loan and to the net income of such property. It has been noted in earlier articles in this series that a roughly similar interpretation has been placed on the borrowing of educational institutions in both Wisconsin and Illinois.

The loans of the universities and colleges have been in largest measure for the plant of athletic departments, dormitories, and student recreation buildings—facilities which readily lend themselves to separate operation and accounting. Thus earnings, sales, or fees may be specifically earmarked to a given facility and used to cover direct operating expenses and that portion of overhead costs required for interest and principal repayment. The security to lenders involved in the pledge of a given physical asset is thus enhanced by the sequestration of all net earnings from operations. To such economic and legal assurances may be added the moral prestige and standing of the borrower. This latter consideration is no doubt a dominant factor in loans solely secured by a pledge of property and paid from "any income of the university." In 1937 the Attorney General held that "any income" may include proceeds from the educational improvement tax levied from time to time, if the indebtedness contracted was for a similar purpose, namely, "for improvements and additions to the physical plant under the control of the Board of Trustees." Beginning in 1943, the legislature has appropriated approximately one hundred thousand dollars for interest and principal payment on the bonded indebtedness of Indiana University. Neither of the examples cited can be construed as an assumption of responsibility on the part of the State for university indebtedness.

The total of outstanding borrowings for higher educational institutions in Indiana has never been in excess of 7 million dollars or approximately 60 per cent of the total annual expenditures for the universities and colleges; in recent years the average relationship has been much lower, about 30 per cent. Past experience is not, however, in this case an infallible guide for the future. The proportion of high school graduates seeking higher education is steadily growing. As a result of educational aids extended to veterans, the current enrollments at universities are far in excess of any previous records. There is responsible opinion holding that, given a continued high level of income payments, there will be even after the veterans' program has expired, far greater demands for advanced general and specialized training than ever before. It also seems probable that the proportion of students cared for in private institutions will diminish because of re-

[1]Constitution, Article 10, Section 5. Sections 2 and 6 also contain references to debt policy; the former dedicates proceeds from the sale of public works owned by the State and annual surpluses from general State operation to debt retirement; the latter prohibits the assumption by the State of local or corporate debts. These sections read as follows:

"Section 2. *Payment of Public Debt.* All the revenue derived from the sale of the public works belonging to the State, and from the net annual income thereof, and any surplus that may, at any time, remain in the treasury, derived from taxation for general State purposes, after the payment of the ordinary expenses of the government, and of the interest on bonds of the State, other than bank bonds, shall be annually applied, under the direction of the General Assembly, to the payment of the principal of the public debt."

"Section 6. *County Indebtedness for Stock—State Assumption of Debt.* No county shall subscribe for stock in any incorporated company, unless the same be paid for at the time of such subscription; nor shall any county loan its credit to any incorporated company, nor borrow money for the purpose of taking stock in any such company; nor shall the General Assembly ever, on behalf of the State, assume the debts of any county, city, town or township, nor of any corporation whatever."

cent and apparently continuing declines in endowment fund earnings and the effect of the high level of Federal income tax rates on the accumulation of personal fortunes and estates from which gifts to endowed institutions are made.

These considerations point to an immediate and pressing need for larger physical plants for education, not only at State supported institutions in Indiana but elsewhere as well. Such expansion will undoubtedly be implemented with the financial tools which have been employed in recent years. The constitutional restriction on state borrowing and the demands on current revenue for other state functions may be expected to impose the financing of whatever new capital outlays expansion requires on the type of credit instruments these institutions have pioneered.

The loans of the State Fair Board (Indiana Board of Agriculture) and the Armory Board are similar to those of the universities. Prior to 1921, the Board of Agriculture was a private non-profit corporation which had the functions of promoting the science of agriculture and of operating the Indiana State Fair. In that year the corporation was dissolved, and a State agency with a like name took over the property of the corporation subject to a substantial indebtedness which was immediately paid from State funds. Shortly thereafter the Board was able, despite temporary reverses in the courts, to borrow funds for capital improvement and the funding of the State's earlier advances. State tax levies were also initiated in these years for the use of the Board of Agriculture with no specific statutory limitation on the purposes for which the money was to be spent. In practice, most of the funds are used for payment of principal and interest on the borrowing.

In 1925 the State Armory Board inaugurated a building program for the housing of State Militia in various cities of the state. Building sites were received largely from private and public contributors; however, the State Armory Board had neither ready cash nor the authority to encumber State property by mortgage. A separate corporation, the Board of Armory Trustees was formed, which issued bonds for each of the local armories and then leased the property to the State. Rentals received from State appropriations were applied to principal and interest payments, and, at the expiration of the lease, the title to the property reverted to the State. The equity created by contributions plus the assurance of regular State contributions for rentals made borrowing possible.

INDIANA
OUTSTANDING STATE DEBT, 1920-45
(In millions of dollars)

Fiscal Year[1]	Total[2]	Operating Deficit[3]	Educational Institutions[4]	State Fair Board[5]	Armories[6]
1920	.2	—	.2	—	—
1921	.3	—	.2	.1	—
1922	1.8	1.5	.2	.1	—
1923	3.0	1.8	.2	1.0	—
1924	3.8	2.5	.2	1.1	—
1925	3.2	2.0	.2	1.0	N.A.
1926	1.4	—	.4	1.0	N.A.
1927	1.7	—	.7	1.0	N.A.
1928	2.1	—	1.2	.9	N.A.
1929	1.9	—	1.1	.8	N.A.
1930	4.5	—	2.1	.8	1.6
1931	5.1	—	2.6	1.0	1.5
1932	4.7	—	2.3	1.0	1.4
1933	4.4	—	2.2	.9	1.3
1934	4.2	—	2.1	.9	1.2
1935	3.9	—	2.1	.7*	1.1
1936	4.4	—	2.8	.6*	1.0
1937	5.7	—	4.1	.5*	1.1
1938	5.9	—	4.3	.4*	1.2
1939	9.1	—	7.0	.8*	1.3
1940	8.9	—	6.8	.8	1.3
1941	8.5	—	6.5	.8	1.2
1942	7.8	—	6.1	.7	1.0
1943	7.4	—	5.9	.6	.9
1944	6.9	—	5.4	.6	.9
1945	6.4	—	5.1	.5	.8

[1]For years 1920-33, indebtedness is shown as of September 30, and in 1934 and thereafter, as of June 30.
[2]Does not include interfund borrowing and loans from trust funds.
[3]Consists of bank loans for current ordinary expenses of the State government.
[4]Until 1928 the entire indebtedness in this category consists of loans for a hospital and dormitories at Indiana University; in 1929 loans were made for dormitories at Purdue University, and in 1930 for dormitories at the two normal colleges. In 1930 and thereafter, approximately one-half of the total debt is for Indiana University, and the greatest part of the second half is for Purdue University. Loans were also made for gymnasium, Union Buildings, Halls of Music, and Education and Administration Buildings.
[5]Was called the Board of Agriculture prior to 1941.
[6]Includes the total debt of the Board of Armory Trustees.
*Denotes debt outstanding on December 31.
N.A.—Not available.
SOURCES: *Statistical Report for the State of Indiana; Yearbook, Indiana.*

BORROWING FOR CASUAL DEFICITS

The constitutional authority in the Indiana Constitution to incur debts for casual deficits is an important financial and budget-making aid. It introduces an additional element of elasticity into financial planning that is generally lacking in states where temporary loans are precluded or are restricted to nominal amounts. In these states a biennial program of state expenditure and taxation is expected to anticipate any and all contingencies affecting either the general revenue or the level of governmental expenditures. This may be accomplished by making the revenue system extra-adequate, that is, by underestimating its yield in light of the economic conditions that will probably prevail in the period ahead. This calculation has become increasingly unreliable as state fiscal systems have progressed from dependence on property taxes, whose instability is conditioned only by sudden changes in the level of tax delinquency, to reliance on sales taxes, excises, and net income levies. The best estimates of revenue from these levies are vulnerable to assumptions regarding the level of economic conditions and income payments.

The converse budget policy to underestimation of tax yields—the overestimation of expenditures—has a too large obvious disadvantage to be commonly employed. However, it is used on occasion in connection with programs that enjoy wide public acceptance and appeal and for which there may be a recognized factor of uncertainty and contingency. It is also found to yield budget flexibility in a more roundabout fashion in the case of earmarked programs. Thus the policy of utilizing the entire proceeds of a given tax for a particular function may have a quasi-permanent status subject only to casual biennial review. Flexibility is attained when in such cases tax yields provide more funds than are needed or likely

to be spent for the designated function. The surplus thus created may then be available for interfund loans or permanent transfer. In the past two decades highway finances provide the best illustration of this budget policy.

Greater flexibility in state finances can also be attained by the accumulation of an unearmarked surplus which is available to bridge unanticipated gaps between revenues and expenditures. The larger this cushion the less necessity there is for deliberately underestimating revenues or overestimating expenditures. It facilitates the adoption of a tax program which is based on the most probable course of events instead of the least favorable combination of circumstances which is within the realm of reasonable probability. That is to say that government officials will attempt to obtain authorization for expenditures that will enable them to meet not only fixed and certain demands but also a variety of contingencies none of which, or only a few of which, may occur. In their revenue estimates they will be inclined to the most conservative forecasts. A surplus which can be made available under appropriate safeguards and proper government authority to absorb the unlikely eventualities and those that are completely unanticipated will ordinarily be conducive to more realistic and better budgets and, in the long run, lower expenditures.

The authority to incur debt for casual deficits offers much the same opportunities for flexible and more accurate budgeting as the unearmarked surplus. This is particularly true in a state like Indiana which has no large outstanding debt for highways, soldiers' bonuses, or other public works, and where, as a consequence, the State's credit is fully available. Indiana thus has two instruments of financial policy—a comfortable surplus and the capacity to borrow for operating deficits—which enable it to approach the problems of postwar services and taxes realistically and with comparative indifference to improbable vicissitude in economic conditions.

It is unfortunate that early experience in Indiana from about 1880 to 1924 with borrowing for casual deficits does not establish a record of accomplishment from which precedents for future policy can be drawn. In those years the State relied on the constitutional license for funding casual deficits to postpone unreasonably and to defer through refunding operations an obvious need for reduced expenditures or higher taxes. It also financed non-recurrent capital outlays out of general fund appropriations and a resultant deficit without a pretext of estimating a balance between income and outgo.[2] Despite these abuses the State Supreme Court was disposed to a liberal interpretation of the casual deficit clause in the case of *Hovey v. Foster* when legislative discretion under that clause was subjected to legal attack.[3] It accorded recognition to the logical alternative of deficit financing—surplus accumulation:

". . . it was foreseen that without gathering from the pockets of the people and carrying a large surplus in the treasury of the state, no human provision could prevent occasional deficits in the revenues. The tax levy could not possibly be so adjusted to the necessary expenses of carrying on the state government, and of providing and maintaining the public buildings and institutions of the state, and for such other appropriations as are clearly within legislative discretion, without an occasional surplus or deficit."

The court also recognized that the historical basis for the prohibition against state debts was directed at incursions into the field of public works, and that so long as the General Assembly did not trespass into such fields, a large measure of discretion should be allowed.

"So if it were known that the legislature had or was about to authorize the use of state funds in the construction of a railroad, canal or other public work or institution, not within the ordinary and legitimate needs of the state, and that such a loan was about to be authorized to meet appropriation made to defray the expense of such work under the guise of meeting a deficit to carry on the government of the state, it would be the duty of the courts to . . . arrest what they would judicially know to be a mere pretext to evade the constitution . . . The court has no such knowledge concerning the enactment of the law here in question. On the contrary, the court has knowledge that the state has been engaged for several years in providing public buildings and necessary state institutions, and that unusual and unforeseen expenditures have been required, calling for appropriations of public money . . . All these are subjects which pertain to the public welfare of the people, and are within ordinary legislative discretion."

Even though the position of the court in this case may look well in perspective, it must at the time it was written, have been regarded with alarm in some quarters. The state debt then totaled about 8 million dollars, which in 1890 was roughly equivalent to two years of state revenues. In terms of Indiana's fiscal resources this was a very large debt; a comparable one for the state government of today would be between 250 and 300 million dollars. The failure of the court to check the then current financial practices may have indirectly had the effect of compelling the legislature and the executive to institute reforms on their own responsibility. In any case, beginning in 1893 a policy of debt retirement was instituted which in the course of a little over twenty years retired all obligations under the casual deficit proviso. Since that time, the State has only briefly (1922-25) resorted to deficit financing. It did not grant a soldiers' bonus following World War I, the chief reason noted in the governor's statement following his pocket veto being that the people were neither in the mood nor the financial condition to stand an expenditure of 20 to 25 million dollars. Neither did Indiana emulate its neighbors in a large-scale, concentrated highway program. Highway development plans were expanded when highway-user revenues increased, and contracted when highway-user revenues decreased. Encouragement of local indebtedness for highways has never been a matter of state policy. Gradually many of the roads built by townships and counties became a part of the state system, but the Constitution precludes any assumption of township or county debts (see Section 6 of footnote 1 above). Even during the acutely depressed economic conditions of the 1930's the budget was annually balanced or the cash balance on hand drawn upon to avoid outside loans. By consolidation of operating funds and the elimination of much earmarking, the State has also largely avoided the necessity after the early 1920's of interfund loans. A tradition of twenty years standing resting on pay-as-you-go or surplus financing has been established. While qualified by special borrowing arrangements for certain agencies, the State generally appears committed to use its credit only as a last resort.

[2]See Frank G. Bates, "The Borrowing Power Under the 'Casual Deficit' Proviso of the Indiana Constitution," *Indiana Law Journal*, March 1933, Pp. 341-358.
[3]21 N.E. 39, (1889).

AGRICULTURAL RESEARCH TO EXPAND

(Continued from Inside Front Cover)

Emphasis to date has been on the development of an effective administrative organization to outline, initiate, and control the contemplated program. The Act provides for the establishment of a national advisory committee, to be named by the Secretary, which will make recommendations regarding research and service work and assist in obtaining cooperation among Federal and state agencies, producers, farm organizations, and private industry. All interested groups have been invited to submit recommendations for the operation of the extended research program.

No funds have been appropriated or requested at this writing under the new authorization. There has been some criticism of the apparent slowness with which the program is getting under way. However, time devoted to careful planning and coordination of the program before large expenditures are made is recognized quite generally as time well spent. There is no assurance that the present and succeeding Congresses will appropriate funds in anything approximating the volume authorized by the basic legislative Act. However, if substantial benefits can be demonstrated, relatively adequate financial support is expected.

One of the major handicaps of the program will be limited supply of personnel adequately qualified by inherent ability, training, and experience to conduct the high quality of research work which is needed. Also, the record enrollment in educational institutions throughout the country is expected to continue for at least several years, with teaching activities requiring the full-time attention of many of the personnel qualified to plan and direct research activities. Some of the funds appropriated might well be employed to aid the training of research personnel. A further handicap to the rapid expansion of the program lies in the inadequacy of present basic data with which to work. The basic statistical facts descriptive of how the present production, processing, and marketing functions are performed lack both breadth of coverage and detail. Finally, the physical plant and equipment for the conduct of many of the researches visualized will be inadequate and require expansion. None of these handicaps is insurmountable. Each can be solved adequately, given time and resources.

The program may suffer from "overselling." Most of the benefits will emerge slowly and be of a long-run nature. Consequently, the current surge of interest and support may dwindle unless extensive results are demonstrated within a year or so.

The introduction or breeding of improved varieties of crops or livestock is a long-time procedure involving much experimentation and testing. The benefits possible from this type of activity should not be discounted, however, due to the long period of time required before practical results are achieved. The great contributions to society of such phenomenal developments as hybrid corn, disease resistant high yielding wheats, and other improved crops and livestock are striking examples of possibilities in this field of research. An important consideration here, from the social standpoint, is that the benefits are readily distributed throughout the economy. For example, the development of hybrid corn increased the yield per acre and reduced the cost of producing corn. The larger output of corn resulted in increased production of livestock products with consumers benefiting from both the increased supplies and reduced costs.

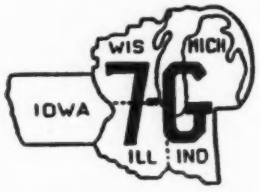
It is suggested frequently that less improvement has been made in distribution or marketing techniques than in production. Directing that certain of the funds authorized by the Act be used for research in marketing, the Congress provides for "a scientific approach to the problems of marketing, transportation, and distribution of agricultural products similar to the scientific methods which have been utilized so successfully during the past 84 years in connection with the production of agricultural products."

Research directed to the development of more efficient marketing has received much popular support through a comparison of prices paid at retail to prices received by farmers for comparable units of commodities. During the 1935-39 period, farmers received about 40 cents from each dollar spent for food at retail by consumers. During recent years, with a much higher price level, farmers have received from 44 to 54 cents of the consumer's food dollar. It has been popular to conclude from these and similar data that "distribution costs too much." However, conclusions as to where and how distribution costs can be reduced have not been provided so readily. This is one of the prime problems which the expanded researches in marketing are expected to answer. Even after possible economies are made evident by careful study of present processing and distributive practices, it is by no means clear that current practices will be modified readily. However, once the facts are made available, more intelligent decisions should be possible by all who are concerned with the marketing processes, with more efficient marketing resulting.

The possibility of increasing the size of the market for farm products through increasing the industrial utilization of such commodities has received some attention. Studies in this field are to be increased under the present Act. Those who anticipate startling results may be disappointed. Probably the major benefits from research along these lines will flow from the development of processes which better adapt agricultural products to the requirements of industry, thereby retaining markets in which farm products have tended to be displaced. The development of new products which enrich living through having a greater variety of commodities available for consumption may also be of importance. If past experience can be considered indicative of results, there may develop from this type of research fully as many techniques which economize on the industrial utilization of farm products as techniques which increase the outlets for farm products. Even so, society as a whole is likely to benefit.

The greatly expanded program of agricultural research authorized by the last Congress is expected to play an important role in the postwar development of American agriculture. By providing the means for launching a coordinated attack upon the many problems, present and potential, confronting producers and processors of agricultural products, the ground work has been laid for a significant long-run contribution to the welfare not only of farmers but of consumers generally.

SEVENTH FEDERAL



RESERVE DISTRICT